



DEPARTMENT OF THE ARMY  
BASE REALIGNMENT AND CLOSURE  
ATLANTA FIELD OFFICE  
BRAC ENVIRONMENTAL COORDINATOR  
HAMILTON ARMY AIRFIELD  
1 BURMA ROAD  
NOVATO, CALIFORNIA 94949



April 5, 2004

DAIM-BO-A-HA

Subject: Forwarding the *Source Investigation Report for the Archives Search Report Sites 4, 18, and 19* Hamilton Army Airfield; Novato, CA.

Ms. Naomi Feger  
S.F. Bay Regional Water Quality Control Board  
1515 Clay Street, Suite 1400  
Oakland, CA 94612

Dear Ms. Feger,

The Army is pleased to provide the *Source Investigation Report for the Archives Search Report Sites 4, 18, and 19* Hamilton Army Airfield; Novato, CA for your review.

This submittal satisfies Task 3b of Board Order No. R2-2003-0076 Site Cleanup Requirements (SCR) – Hamilton Army Airfield pertaining to the Archives Search Report (ASR) sites. The ASR sites documented in this report are: the Skeet Range, Firing-In Butt, and Testing Range. These sites were included in the *Miscellaneous Sites Investigation Workplan*, which satisfied Task 3a of the SCRs.

Based on the data, the Army recommends further investigation at the Testing Range and Skeet Range sites. The Army recommends no further investigation at the Firing-In Butt because metal concentrations were below action goals at this site.

This document is being submitted to the RWQCB in accordance with SCR provision C8. It is also being distributed in accordance with SCR provision C9 for information.

I request your response by May 7, 2004. If you have any questions, please contact me at (415) 883-6386.

Sincerely,

Edward Keller, P.E.  
BRAC Environmental Coordinator  
Hamilton Army Airfield

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Hamilton Army Airfield, Novato, CA  
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# **SOURCE IDENTIFICATION REPORT FOR THE ARCHIVES SEARCH REPORT SITES 4, 18, AND 19 HAMILTON ARMY AIRFIELD NOVATO, CALIFORNIA**

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**TESTING RANGE**

Prepared by:



**US Army Corps  
of Engineers®**

Sacramento District  
Environmental Design Section

Prepared for:



Department of the Army  
**Base Realignment and Closure**

**APRIL 2004**

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## **TABLE OF CONTENTS**

|  |          |
|--|----------|
| <b>1.0 Introduction.....</b>   | <b>1</b> |
| <b>2.0 Sampling Strategy and Associated Field Activities .....</b>                                 | <b>2</b> |
| 2.1 Testing Range (ASR # 4) Sampling for Selected Metals .....                                     | 2        |
| 2.2 Skeet Range (ASR # 18) Sampling for Selected Metals and Polynuclear Aromatic Hydrocarbons..... | 2        |
| 2.3 Firing-In Target Butt (ASR # 19) Sampling for Selected Metals .....                            | 2        |
| <b>3.0 Results.....</b>  | <b>4</b> |
| 3.1 Data Quality .....   | 4        |
| 3.2 Testing Range (ASR # 4).....   | 4        |
| 3.2.1 Chemical Analysis Results .....  | 4        |
| 3.2.2 Sieving Results.....   | 5        |
| 3.3 Skeet Range (ASR # 18) .....   | 5        |
| 3.3.1 Chemical Analysis Results .....  | 5        |
| 3.3.2 Sieving Results.....   | 6        |
| 3.4 Firing-In Target Butt (ASR # 19) .....   | 7        |
| 3.4.1 Chemical Analysis Results .....  | 7        |
| 3.4.2 Sieving Results.....   | 7        |
| <b>4.0 Conclusions.....</b>  | <b>8</b> |
| <b>5.0 References.....</b>   | <b>9</b> |

## **LIST OF TABLES**

|   |   |
|---|---|
| Table 3-1. Testing Range Results Exceeding Action Goal..... | 4 |
| Table 3-2. Testing Range Sieving Results.....               | 5 |
| Table 3-3. Skeet Range Results Exceeding Action Goal.....   | 6 |
| Table 3-4. Skeet Range Sieving Results .....                | 6 |
| Table 3-5. Firing-in Target Butt Sieving Results.....       | 7 |

## **LIST OF FIGURES**

Figure 1-1, Project Location Map

Figure 1-2, ASR Sites Location Map

Figure 2-1, Testing Range (Archive Search Report Site #4) with Sample Locations

Figure 2-2, Skeet Range (Archive Search Report Site #18) with Sample Locations

Figure 2-3, Firing-in Target Butt (Archive Search Report Site #19) with Sample Locations

## **APPENDICES**

Appendix A: Analytical Data Tables

Appendix B: Analytical Report Forms (on Compact Disc)

## **ACRONYMS**

|         |   |
|---------|---|
| ASR     | Archives Search Report                                  |
| bgs     | below ground surface                                    |
| BRAC    | Base Realignment and Closure                            |
| DoD     | Department of Defense                                   |
| DTSC    | California State Department of Toxic Substances Control |
| FITB    | Firing-in Target Butt                                   |
| HAAF    | Hamilton Army Airfield                                  |
| mg/kg   | milligrams per kilogram                                 |
| PAHs    | Polynuclear Aromatic Hydrocarbons                       |
| ROD/RAP | Record of Decision/Remedial Action Plan                 |
| RWQCB   | California Regional Water Quality Control Board         |
| USACE   | U.S. Army Corps of Engineers                            |

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# **SOURCE IDENTIFICATION REPORT**

## **ARCHIVES SEARCH REPORT SITES 4, 18, AND 19**

### **HAMILTON ARMY AIRFIELD**

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## **1.0 INTRODUCTION**

The former Hamilton Army Airfield (HAAF) has been owned and operated by various branches of the Department of Defense (DoD) from 1932 to September 30, 2003. The Army is responsible for environmental remediation at HAAF as the Department of Defense owner of the property at the time of closure under the Base Realignment and Closure Act (BRAC) of 1988. The Army prepared an Archive Search Report (ASR) that identified three former firing range areas that may have been contaminated. The Army is responsible for investigating these sites to identify the probability of contamination that would pose a risk to future receptors in the reuse of the property as a wetland restoration site. The results of this initial investigation are compiled in this report.

A field sampling investigation was performed in January 2004 at three ASR sites within HAAF in Novato, California (see Figure 1-1). The three sites are identified in the ASR as Site 4 (Testing Range), Site 18 (Skeet Range), and Site 19 (Firing-In-Butt [referred to in this document as the Firing-In Target Butt {FITB}]) (USACE 2001) and samples had not been collected at these sites previously. The site locations within HAAF are illustrated in Figure 1-2. The investigation was conducted in accordance with the *Work Plan, Miscellaneous Site Investigations, Hamilton Army Airfield* (USACE 2004), with the exceptions noted in this report. The source identification investigation was designed to collect the data necessary to determine if the soil at each of the sites is contaminated from past DoD activities and if further action is required. The decisions are based upon the agreements and action goals in the *Record of Decision/ Remedial Action Plan (ROD/RAP)* (Army, DTSC, RWQCB 2003).

This report presents a summary of the fieldwork, the results of the source identification investigation, and conclusions.

## **2.0 SAMPLING STRATEGY AND ASSOCIATED FIELD ACTIVITIES**

### **2.1 Testing Range (ASR # 4) Sampling for Selected Metals**

Sampling and analysis was conducted to determine if surface soil metals (antimony, arsenic, cadmium, chromium, copper, lead, nickel, and zinc) concentrations exceed the action goals, and if ammunition fragments are present. The selected metals are indicative of metals from ammunition. Samples were collected along the length of the Testing Range Area on the inboard side of the levee halfway between the levee top and bottom, as illustrated in Figure 2-1.

The Testing Range area was heavily overgrown with tall weeds (6-10 ft in height). Each sample area was cleared using a stainless steel trowel or spoon to scrape growth in a circle approximately 1 ft in diameter. Five samples were collected from 0 to 3 inches below ground surface (bgs) for metals analysis by Method 6010. Additionally, five samples were collected at the same depths for sieve analysis. All samples were collected in accordance with the work plan; however, each sample location was shifted approximately 20 feet east towards the levee to reach the vertical center of the levee wall.

### **2.2 Skeet Range (ASR # 18) Sampling for Selected Metals and Polynuclear Aromatic Hydrocarbons**

Sampling and analysis was performed to determine if surface soil metals (antimony, arsenic, cadmium, chromium, copper, lead, nickel, and zinc) and polynuclear aromatic hydrocarbons (PAHs) concentrations exceed action goals, and if skeet and ammunition fragments are present. The selected metals are indicative of metals from ammunition and the PAHs are constituents of clay pigeons. Figure 2-2 illustrates the sample locations for both chemical analysis and sieving.

The Skeet Range area was heavily overgrown with weeds (1-6 ft tall). Each sample area was cleared using a stainless steel trowel or spoon to scrape growth in a circle approximately 1 ft in diameter. Nine samples were collected from 0 to 3 inches below ground surface (bgs) for metals analysis by Method 6010B and total PAH analysis by Method 8270C using selective ion monitoring (SIM). Additionally, five were collected from the same depths for sieve analysis. All samples were collected in accordance with the work plan; however, the location of sample SR-770 was moved away from a road.

### **2.3 Firing-In Target Butt (ASR # 19) Sampling for Selected Metals**

Sampling and analysis was performed to determine if surface soil metals (antimony, arsenic, cadmium, chromium, copper, lead, nickel, and zinc) concentrations exceed action



goals and if ammunition fragments are present. The selected metals are indicative of metals from ammunition. Figure 2-3 illustrates the sample locations for both chemical analysis and sieving.

The Firing-In Target Butt area was heavily overgrown with weeds (1-10 ft in height). Each sample area was cleared using a stainless steel trowel or spoon to scrape growth in a circle approximately 1 ft in diameter. Five samples were collected from 0 to 3 inches below ground surface (bgs) for metals analysis by Method 6010B. Additionally, four were collected at the same depth for sieve analysis. All samples were collected in accordance with the work plan; however, small shifts were required to accommodate the terrain. The locations of samples FITB-732 and FITB-F-737 were shifted approximately 20 feet out of the water to the edge of a pond. The locations of samples FITB-F-734 and FITB-F-735 were shifted approximately 10 feet so that they were off of a gravel road.

### 3.0 RESULTS

Analytical results are listed in Appendix A by site. Laboratory data packages are included in Appendix B in electronic format. The compact disc containing this information is supplied at the end of this report.

#### 3.1 Data Quality

The data were validated using the procedures specified in the Quality Assurance Project Plan section of the work plan. All data are considered usable to meet the project objectives with the exception of all antimony results. The analytical procedures used did not allow acceptable recovery of antimony in the soil samples; therefore, the presence or absence of antimony cannot be determined. The presence of any antimony above ambient concentrations due to range activities would be accompanied by the presence of other metals above ambient levels, most notably lead. Further investigation, if necessary, at these sites will include a different preparation method for the analysis of antimony so usable results will be available for assessing risk.

#### 3.2 Testing Range (ASR # 4)

##### 3.2.1 Chemical Analysis Results

Samples were analyzed for eight selected metals indicative of metals from ammunition. Data tables with all results are included in Appendix A. Table 3-1 lists results that are greater than the associated action goal. Analytical results and sample locations are presented in Figure 2-1.

**Table 3-1. Testing Range Results Exceeding Action Goal**

| <b>Sample Identification Number</b> | <b>Analyte</b> | <b>Concentration (mg/Kg)</b> | <b>Action Goal (mg/Kg)</b> |
|-------------------------------------|----------------|------------------------------|----------------------------|
| HAAF-TR-747                         | Lead           | 318                          | 46.7                       |
| HAAF-TR-748                         | Copper         | 227                          | 68.1                       |
|                                     | Lead           | 2230                         | 46.7                       |
| HAAF-TR-749                         | Copper         | 71.2                         | 68.1                       |
|                                     | Lead           | 1090                         | 46.7                       |
| HAAF-TR-750                         | Copper         | 758                          | 68.1                       |
|                                     | Lead           | 1170                         | 46.7                       |
| HAAF-TR-751                         | Copper         | 136                          | 68.1                       |
|                                     | Lead           | 1390                         | 46.7                       |

### 3.2.2 Sieving Results

Samples were sieved for fragments of ammunition, pellets, and/or shards. The surface soil for each location was collected in three 4-ounce jars. The full volume of all three jars was sieved. Table 3-2 lists the results.

**Table 3-2. Testing Range Sieving Results**

| Sample ID | Description                                  | Number of Fragments Found | Size    |
|-----------|--|---------------------------|---------|
| TR-F-752  | Shards (small, gray-black, possibly ceramic) | 4                         | 4-10 mm |
| TR-F-753  | None   | 0                         | None    |
| TR-F-754  | Flattened pellet (possibly a piece of shot)  | 1                         | 5 mm    |
| TR-F-755  | None   | 0                         | None    |
| TR-F-756  | Flattened pellet (possibly a piece of shot)  | 1                         | 5 mm    |
|           | Shards (small, gray-black, possibly ceramic) | 4                         | 3-15 mm |

## 3.3 Skeet Range (ASR # 18)

### 3.3.1 Chemical Analysis Results

Samples were analyzed for eight selected metals indicative of metals from ammunition and PAHs. Data tables with all results are included in Appendix A. Table 3-3 lists results that are greater than the associated action goal. All results and locations are presented in Figure 2-2.

**Table 3-3. Skeet Range Results Exceeding Action Goal**

| <b>Sample Identification Number</b> | <b>Analyte</b> | <b>Concentration (mg/Kg)</b> | <b>Action Goal (mg/Kg)</b> |
|-------------------------------------|----------------|------------------------------|----------------------------|
| HAAF-SR-738                         | Lead           | 96.8                         | 46.7                       |
| HAAF-SR-739                         | Total PAHs     | 12.45                        | 4.022                      |
| HAAF-SR-741                         | Lead           | 101                          | 46.7                       |
|                                     | Total PAHs     | 1130                         | 4.022                      |
| HAAF-SR-742                         | Cadmium        | 6.85                         | 1.2                        |
|                                     | Lead           | 123                          | 46.7                       |
|                                     | Total PAHs     | 21.6                         | 4.022                      |
| HAAF-SR-766                         | Total PAHs     | 557                          | 4.022                      |
| HAAF-SR-768                         | Lead           | 154                          | 46.7                       |

### 3.3.2 Sieving Results

Samples were sieved for fragments of ammunition, pellets, and/or shards. The surface soil for each location was collected in three 4-ounce jars. The full volume of all three jars was sieved. Table 3-4 lists the results.

**Table 3-4. Skeet Range Sieving Results**

| <b>Sample ID</b> | <b>Description</b>                        | <b>Number of Fragments Found</b> | <b>Size</b> |
|------------------|---|----------------------------------|-------------|
| SR-F-743         | Shards (possibly ceramic)                 | 6                                | 5-10 mm     |
|                  | Rounded pellets (possibly pieces of shot) | 2                                | 5 mm        |
| SR-F-744         | Rounded pellets (possibly pieces of shot) | 2                                | 5 mm        |
| SR-F-745         | Shards (possibly ceramic)                 | 3                                | 2-6 mm      |

| Sample ID | Description               | Number of Fragments Found | Size     |
|-----------|---------------------------|---------------------------|----------|
| SR-F-746  | Shards (possibly ceramic) | 1                         | 5 x 8 mm |
| SR-F-767  | Shards                    | 3                         | 5-10 mm  |

### 3.4 **Firing-In Target Butt (ASR # 19)**

#### 3.4.1 **Chemical Analysis Results**

Samples were analyzed for eight selected metals indicative of metals from ammunition. Data tables with all results are included in Appendix A. No results were greater than the associated action goal. All results with sample locations are presented in Figure 2-3.

#### 3.4.2 **Sieving Results**

Samples were sieved for fragments of ammunition, pellets, and/or shards. The surface soil for each location was collected in three 4-ounce jars. The full volume of all three jars was sieved. Table 3-5 lists the results.

**Table 3-5. Firing-In Target Butt Sieving Results**

| Sample ID  | Description                                 | Number of Fragments Found | Size     |
|------------|---|---------------------------|----------|
| FITB-F-734 | Flattened pellets (possibly pieces of shot) | 2                         | 5 mm     |
|            | Shards (possibly ceramic)                   | 3                         | 2-6 mm   |
| FITB-F-735 | Shards (possibly ceramic)                   | 1                         | 5 mm     |
| FITB-F-736 | Rounded pellets (possibly pieces of shot)   | 2                         | 5 mm     |
|            | Shards (possibly ceramic)                   | 1                         | 10x30 mm |
| FITB-F-737 | None  | 0                         | None     |

## **4.0 CONCLUSIONS**

Conclusions were based upon the decision rules in the Data Quality Objectives section of the work plan. Ammunition, fragments, and/or shards were found at all three sites, suggesting the historical use of these ranges for military and/or recreational activities; however, soil metals concentrations exceeded the action goals at only two of the three sites.

All four samples from the Testing Range (ASR #4) contained constituents that exceeded the action goal. These were limited to lead and copper. The presence of pellets and small shards at this site indicates that there is residual contamination from Testing Range activities.

Six of the nine samples from the Skeet Range (ASR #18) contained constituents that exceeded the action goal. Elevated lead, cadmium and Total PAH concentrations within the Skeet Range appear to be restricted to the center and western portion of the range. The presence of pellets and small shards at this site indicates that there is residual contamination from Skeet Range activities.

All metals concentrations in the surface soil at the Firing-In Target Butt (ASR #19) were below the action goals. Activities at the Firing-In Target Butt do not appear to have contaminated site soils. This may be due to the short timeframe of use and the removal of the FITB structure from the site in 1947.

## 5.0 REFERENCES

- Army (U.S. Department of the Army), DTSC (California State Department of Toxic Substances Control), RWQCB (California Regional Water Quality Control Board) 2003. *Main Airfield Parcel Record of Decision/Remedial Action Plan, Hamilton Army Airfield*, Public Comment Final, August 2003.
- USACE 2001. *Archives Search Report, Conclusions and Recommendations, Hamilton Army Airfield*, U.S. Department of Defense Program, Base Realignment and Closure, Ordnance, Ammunition and Explosives, Final, September 2001.
- USACE 2004. *Work Plan, Miscellaneous Site Investigations, Hamilton Army Airfield*, Final, January 2004.
- U.S. Environmental Protection Agency (EPA) 1996. *Test Methods for Evaluating Solid Waste Physical/Chemical Methods, Third Edition*, December 1996.
- U.S. Fish and Wildlife Service Biological Opinion and amending letter, August 2003 and September 2003.